Quantitative Evaluation of the Fulfillment of Social Responsibility of Guizhou Governmental WeChat Official Accounts

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Abstract: Based on 904 articles from 10 governmental WeChat public accounts in Guizhou Province from October 19th, 2021 to October 31st, 2021, this study quantitatively evaluates their social responsibility performance by using the social responsibility evaluation index system developed by Huazhong University of Science and Technology. It is found that although much remains to be improved concerning communication and coordination, value guidance and cultural education, Guizhou governmental new media has fulfilled its social responsibility well in information production since the COVID-19 epidemic entered the stage of normal prevention and control. And it is suggested that attention should be paid to the work of platform participation, public participation and platform response in the construction of governmental WeChat public accounts.

1 INTRODUCTION

Against the background of big data development in Guizhou, the "Internet+ government" mode in Guizhou has been steadily promoted. Earlier in 2017, Guizhou set up 1528 governmental WeChat official accounts and realized province-wide coverage of new media for government affairs, forming the first new media matrix for government affairs in China (China News 2017). The new media for government affairs shares an important role in promoting the openness of governmental affairs, optimizing government services, gathering social consensus, innovating social governance, etc. In early 2019, in response to the prominent problems of unclear functional positioning of new media for government affairs, lax information release, irregular construction and operation and maintenance, and lack of supervision and management, Guizhou Province issued the *Implementation Opinions on Promoting the Healthy and Orderly Development of New Media for Government Affairs*. The *Opinions* pointed out that by 2020, a set of new media for government affairs integrating release information, policy interpretation,

concern response, government interaction, office services, and other functional roles should be built in Guizhou, featured by a number of quality accounts and applications welcomed by the public. It is planned that by 2022, the provincial new media for government affairs will truly become an important channel to connect the masses, serve the masses, and unite the masses in the mobile Internet era, an important means to accelerate the transformation of government functions and build a service-oriented government, an important front to guide online public opinion and build clear cyberspace, and an important way to explore new modes of social governance and improve social governance capacity (General Office of Guizhou Provincial People's Government 2019).

At present, Guizhou has witnessed the basic construction of a new media matrix system for government affairs with the new media of the Guizhou Provincial People's Government at the center. The new media for government affairs in Guizhou has basically formed the characteristics of overall synergy and rapid response. It is moving towards a new pattern of standardized development, innovative development, and integrated

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development. Has the propagation, guidance, influence, and credibility of Guizhou's new media for government affairs been comprehensively enhanced during the COVID-19 epidemic? Did the role of connecting the masses, serving the masses, and uniting the masses really come into play? Has the purpose of service-oriented government been truly implemented? Was the guidance of network public opinion really promoted? Has the ability of social supervision and social governance been really improved? These questions constitute the criteria to evaluate whether the Guizhou new media for government affairs really "serve the people". In this paper, Guizhou governmental WeChat official accounts are taken as research objects to study the social responsibility fulfillment situation of Guizhou's new media for government affairs and then provide reference suggestions for the development of Guizhou governmental WeChat official accounts.

2 LITERATURE REVIEW

Research on WeChat stands as a hot topic in academic circles with a lot of literature about "WeChat" on China National Knowledge Internet. However, a fuzzy search combining "WeChat", "WeChat platform", "media responsibility", and "responsibility" yields very limited literature, mostly focusing on the copyright infringement of works generated by the WeChat platform. For example, some scholars point out that the copyright infringement of works on the WeChat platform is so prominent that it is urgent to build a legal, healthy and orderly WeChat intellectual property network environment and strengthen the copyright protection of WeChat works (Yang 2021).

In addition, there are not many studies on the social responsibility of governmental WeChat official accounts. With the search of keywords such as "governmental WeChat official accounts", "governmental WeChat", "new media for government affairs", "responsibility", and "social responsibility" and their combinations, less than one hundred pieces of literature can be retrieved from the journals included in China National Knowledge Internet in recent years, and those with academic research value are also very limited. Specifically, most of the literature focuses on the image shaping analysis of new media for government affairs, analysis of platform construction, and research on proposed operation strategies. Some scholars point out that the functions of governmental WeChat such as information transmission and governmental

services have a very important role in shaping the image of the government. Therefore, multiple subjects must actively collaborate in governance and solve new problems of governmental WeChat with new ideas in order to facilitate the benign development of governmental WeChat (Mao, Liu, Liu 2016). In addition, more literature topics center on the communication of governmental WeChat in crisis events and the guidance of public opinion. For example, some scholars conducted an empirical study based on the users' perspective to compare the crisis communication mechanisms of governmental Weibo and governmental WeChat, the result of which proved that users adopted the different characteristics of governmental WeChat and governmental Weibo to effectively communicate in a crisis, and that governmental Weibo is more influenced by social relationships, while governmental WeChat is more influenced by crisis scenarios (Xie, Peng 2017).

At present, there are many quantitative evaluation methods that can be used to quantitatively evaluate new media such as WeChat. Huang Guofan and others put forward WCI-WeChat Communication Index, which ranks the scores of WeChat public accounts by the use of a calculation formula which is based on relevant quantity of reading index and praise index.(Huang 2015)

Yan Yueming and others proposed a WeChat official account influence model by using H-index and R-index as indicators. R-index is the square root of the total cited frequency in the performance core defined by the H-index which is originally used for evaluating the academic output of scientific researchers. (Yan, Zhao 2016)

Zhang Siyi and others calculated the weight of the evaluation indicators by using the analytic hierarchy process, established the influence hierarchy model of WeChat official account, and constructed a pairwise comparison judgment matrix and consistency test to finally determine the weight coefficient of each evaluation indicator. (Zhang, Zhong 2019)

Ji Fang et al. used the fuzzy comprehensive evaluation method and fuzzy mathematics to comprehensively evaluate the objects affected by a variety of complex factors, and used the principle of subordination to comprehensively measure the relevant elements to achieve quantitative evaluation of qualitative problems. (Ji, Zhang 2015)

In October 2021, *Report on the China's New Media Social Responsibility (2020-2021)*, edited by Professor Zhong Ying's team at Huazhong University of Science and Technology, was released in Wuhan, in which the developed evaluation indicator system was used for the evaluation of new media social

responsibility. Since 2014, new optimizations have been made to the traditional new media social responsibility evaluation indicator system, constructing a three-level indicator system in line with the current communication environment. (Zhong 2021) The indicator system contains 4 first-level indicators, namely "information production", "value guidance", "cultural education", and "coordination and communication", under which there are also 9 secondary-level indicators and 26 third-level indicators. "Information production", the first and most important part of information dissemination, stands as the most important link. And information quality and process management are the two secondary-level indicators of information production; "value guidance" is the purpose and requirement of information dissemination, and its secondary-level indicators include consensus building and social monitoring; "cultural education" mainly includes three secondary-level indicators of cultural inheritance, science and education communication, and entertainment; "coordination and communication", the last link in the process of information dissemination, emphasizes the feedback of information, which includes two secondary-level indicators of information coordination and communication effectiveness. The index system has weight values and calculation methods verified by scientific research, which can be directly used. Therefore, this paper, adopting the new media social responsibility evaluation indicator system, will construct a quantitative assessment method to analyze the social responsibility fulfillment of Guizhou governmental WeChat official accounts since the epidemic outbreak in four parts, information production, value guidance, cultural education, and coordination and communication. Specifically, this study intends to answer the following five research questions.

RQ1: What is the overall situation of social responsibility of Guizhou governmental WeChat official accounts?

RQ2: What is the situation of "information production" of Guizhou governmental WeChat official accounts?

RQ3: What is the situation of "value guidance" of Guizhou governmental WeChat official accounts?

RQ4: What is the situation of "cultural education" of Guizhou governmental WeChat official accounts?

RQ5: What is the situation of "coordination and communication" of Guizhou governmental WeChat official accounts?

3 METHOD

3.1 Data Collection and Processing

On October 19th, 2021, one confirmed COVID-19 case was reported in Zunyi, Guizhou, the resurgence of which broke the 608-day no epidemic record since February 17th, 2020. In the face of the epidemic, a quick reaction was made in Guizhou to prevent and control the epidemic, building an epidemic firewall for its people. With no new infections reported from October 25th, 2021, the epidemic was basically controlled in early November. And this paper attempts to present the social responsibility fulfillment status of Guizhou governmental WeChat official accounts during the sudden epidemic outbreak.

Therefore, this research focuses on nine local governmental WeChat official accounts in the governmental new media matrix published by the Guizhou Provincial People's Government (Guizhou Provincial People's Government included) to represent the nine prefecture-level administrative regions, namely Guiyang People's Government (The Voice of Guizhou), Zunyi People's Government, Liupanshui People's Government, Anshun People's Government, Bijie People's Government, Tongren People's Government, Southwest Guizhou Autonomous Prefecture Peoples' Government (Southwest Guizhou Government), South Guizhou People's Government, Southwest Guizhou People's Government (Southwest Guizhou Government Affairs), and Guizhou Provincial People's Government, which constitute the 10 samples of governmental WeChat official accounts. The contents of articles published by these 10 governmental WeChat official accounts between October 19th, 2021, and October 31st, 2021 were then selected to count and evaluate article by article.

3.2 Measurements and Data Analysis

According to the specific situation of these samples, this paper refers to the new media social responsibility evaluation indicator system[6] and selects 26 third-level indicators under the second-level indicators to assess the current situation of social responsibility performance of Guizhou governmental WeChat official accounts. And the specific scoring basis for the evaluation indicator is shown in Table 1.

Table 1 Scoring Basis for the Third-level Indicators of Social Responsibility Evaluation of Guizhou Governmental WeChat Official Accounts

Third-level Indicators	Main Measurement Path	Remark
Authenticity	The proportion of true samples	Whether true or not
Authority	The proportion of authoritative sources	The authoritative sources here refer to the authority on political attributes, including various national, provincial, municipal, and county-level media.
Timeliness	The proportion of time difference lower than 24 hours between release time and event time	
Coverage	The proportion of content and form diversity	Content Diversity: including the epidemic situation report, national and local epidemic prevention status, epidemic prevention science, social livelihood, etc.; Form diversity: including pictures, video, audio, or a combination of multiple forms
Depth	The proportion of thematic articles, in-depth reports, explanatory reports, etc.	
Originality	The proportion of original content	Based on whether the article is marked as "original"
Objectivity	The proportion of reports with objective views	
Information Check	The proportion of content reviewed	Based on whether or not the audit unit and auditor are marked at the end of the article
Advertising Regulation	The proportion of no advertising	The ads here can be divided into four categories, namely bottom-of-page ads, header ads, implant ads, and independent ads
Infringement Control	The proportion of no copyright infringement	Based on whether or not the source of the article is clear and the name of the author is compiled
Mainstream Value	The proportion of content in line with the main theme of socialism	
Social Ethics	The proportion of content that conforms to the social ethics during the epidemic	Based on whether or not it is about social morality, touching deeds in the epidemic, moving events, etc.
National Governance	The proportion of reports, reprints, and explanations of national policies, regulations, corruption, etc.	
Social Risks	The proportion of information such as emergency epidemic reminders, detailed information on the epidemic situation, and notification of the epidemic situation in neighboring regions	
Behavior Anomie	The proportion of reports on social moral and ethical anomie	
Propaganda of Contemporary Culture and Anti-epidemic Spirit	The proportion of content about the anti-epidemic spirit	The anti-epidemic spirit here refers to articles, songs, etc. that inspire the fight against the epidemic
Educational Communication	The proportion of content about student learning (early childhood, primary school, secondary school, and university)	
Science and Technology Communication	The proportion of content about new vaccine research progress, new technologies, epidemic prevention knowledge, rumor refutation, and daily life tips	

Content Richness	The proportion of content about travel, food, exhibitions, movies, and other entertainment information	
Content Healthiness	The proportion of no vulgarity, pornography, violence, and other unhealthy content	
Publicity of Topics	The proportion of content about epidemic information, social life, government affairs, and other convenient information	
Identity Diversity	The proportion of reports involving multiple targets	
Public Participation	Recording the specific number of reads	
Public Recognition	Recording specific number of likes and "watching"	
Platform Interaction	Recording the number of comments	
Platform Response	Recording the number of replies to comments	

A total of 904 articles published by 10 Guizhou governmental WeChat official accounts between October 19th, 2021, and October 31st, 2021 were collected and analyzed by the content analysis method. The collection and collation of sample data were completed by two trained personnel. Each three-level indicator was scored out of 5. And each article was firstly read and evaluated according to the evaluation indicator system and then the proportion of the number of articles that met the indicator to the overall number of articles was calculated for each governmental WeChat official account, which was then converted into a full score of 5. Among them, specific data should be recorded for the third-level indicators of "public participation", "public recognition", "platform interaction", and "platform response". The score was calculated by the following formula:

$$R = 5 * \frac{N}{N_{max}}$$

In the formula, R stands for the score of this item, N stands for the specific value of single data and N_{max} stands for the highest value of this indicator, the score of each third-level indicator was then calculated based on the overall weight value of Table 2.

Table 2 Weight Values for Three-level Indicators of Social Responsibility Evaluation of Guizhou Governmental WeChat Official Accounts

First-level Indicators		Second-level Indicators		Third-level Indicators		Overall Weight of Third-level Indicators
Information Production	0.5013	Information Quality	0.8300	Authenticity	0.3653	0.152
				Authority	0.1038	0.0432
				Timeliness	0.0942	0.0392
				Comprehensiveness	0.0836	0.0348
				Depth	0.0906	0.0377
				Originality	0.0620	0.0258
				Objectivity	0.2007	0.0835
		Process Management	0.1700	Information Check	0.4472	0.0381
				Advertising Norms	0.1890	0.0161
				Infringement Control	0.3638	0.031
Value Guidance	0.1760	Consensus Building	0.4193	Mainstream Value	0.5176	0.0382
				Social Fashion	0.4824	0.0356
		Social Supervision	0.5801	National Governance	0.3849	0.0393
				Social Risk	0.3751	0.0383
				Anomie of Behavior	0.2400	0.0245
	0.1177		0.4605	Traditional Culture	0.5277	0.0286

Cultural Education		Cultural Heritage		Contemporary Culture	0.4723	0.0256
		Communication Of Science and Education	0.3594	Communication of Education	0.5225	0.0221
				Communication of Science	0.4752	0.0201
		Entertainment	0.1810	Content Richness	0.3662	0.0078
				Content Health	0.6291	0.0134
Communication & Coordination	0.205	Information Coordination	0.3293	Publicity of Topics	0.7422	0.0501
				Identity Diversity	0.2578	0.0174
		Communication Effectiveness	0.6707	Public Participation	0.3331	0.0458
				Public Recognition	0.2815	0.0387
				Public Interaction	0.2356	0.0324
				Public Responses	0.1505	0.0207

4 RESULTS

4.1 Overall Evaluation of Social Responsibility Fulfillment (RQ1) of Guizhou Governmental WeChat Official Accounts

4.1.1 Overall Social Responsibility Score of Guizhou Governmental WeChat Official Accounts

After evaluating the social responsibility of 10 Guizhou governmental WeChat official accounts and calculating the overall weight of the three-level indicators, the two-level and one-level scoring systems are calculated according to the three-level indicator system with reference to the weight value of the new media social responsibility quantitative evaluation system. The mathematical formula is shown in Table 3.

Table 3 Calculation Formula for First-level and Second-level indicators of Social Responsibility Evaluation System of Guizhou Governmental WeChat Official Accounts

First-level Indicator System	Second-level Indicator System
Overall score of social responsibility=0.5013 *Information Production+0.1760 * Information Guidance+0.1177 * Culture Education+0.205 * Coordination and Communication	Information Production=0.830 * Information Quality+0.170 * Process Management
	Value Guidance=0.4193 * Consensus Building+0.5801 *Social Supervision
	Cultural Education=0.4605 * Cultural Heritage+0.3594 * Communication of Science and Education+0.1810 * Entertainment
	Communication and Coordination=0.3293 * Information Coordination+0.6707 * Communication Efficiency

After further processing the data, the first-level index scores of 10 Guizhou governmental WeChat official accounts are shown in Table 4. The ideal full score in the quantitative index system is the weight that is converted from the three-level index to the 5-point system.

Table 4 Overall Social Responsibility Score of Guizhou Governmental WeChat Official Accounts

Unit: Score

Name of Official Account	Information Production	Value Guidance	Cultural Education	Coordination and Communication	Total Score	Ranking
Guizhou Provincial People's Government	2.109565	0.377000	0.096396	0.970274	3.553235	1
Bijie People's Government	2.152383	0.281633	0.123133	0.439167	2.996317	2

Zunyi People's Government	1.953152	0.339382	0.120785	0.370887	2.784205	3
Southwest Guizhou Government Affairs	2.061122	0.310451	0.110622	0.292039	2.774234	4
South Guizhou People's Government	2.028887	0.297633	0.113087	0.313340	2.752947	5
Liupanshui People's Government	1.955306	0.349602	0.110571	0.335240	2.750719	6
The Voice of Guizhou	1.993293	0.340138	0.090879	0.323655	2.747965	7
Anshun People's Government	1.936754	0.304790	0.103225	0.307283	2.652051	8
Southeast Guizhou Government	1.959008	0.282067	0.094300	0.279261	2.614636	9
Tongren People's Government	1.864608	0.290676	0.092088	0.308241	2.555613	10

In the overall evaluation of the social responsibility of the 10 governmental WeChat official accounts, it is unveiled in this paper that the final score of samples falls between 2.5 and 3.5 with a relatively small gap, and the performance of social responsibility remains at the average level. Among them, Guizhou Provincial People's Government ranks first with the highest score of 3.553235, followed by Bijie People's Government and Zunyi People's Government with a score of 2.996317 and 2.784205 respectively. At the bottom of the samples is the Southeast Guizhou Government scoring 2.614636 and Tongren People's Government scoring 2.555613.

It is worth noting that, except for the Guizhou Provincial People's Government which belongs to a provincial unit, none of the other 9 municipal and state-level governmental WeChat official accounts reach a score of more than 3, demonstrating that much remains to be improved in the social responsibility fulfillment ability of the municipal and state-level governmental WeChat official accounts.

In order to further understand the social responsibility fulfillment of Guizhou governmental WeChat official accounts, the maximum value, minimum value, mean value, and standard deviation of the first-level indicator scores of the sample data were calculated. Compared to the ideal full scores of the first-level indicators, the scoring rate of these 10 sample dates was also calculated as shown in Table 5. On the whole, the mean value of the 10 governmental WeChat official accounts is 2.818192 at the moderate level.

Table 5 The Scoring Rate of the First-level Indicators of Guizhou Governmental WeChat Official Accounts

Unit: Score, %

First-level Indicator	Ideal Full Score	Maximum Value	Minimum Value	Mean Value	Standard Deviation	Scoring Rate
Information Production	2.507000	2.152383	1.864608	2.001408	0.082477	79.83
Value Guidance	0.879500	0.377000	0.281633	0.317337	0.030707	36.08
Cultural Education	0.588000	0.123133	0.090879	0.105509	0.011230	17.94
Communication and Coordination	1.025500	0.970274	0.279261	0.393939	0.196979	38.41
Total Score	5			2.818192		

Among all the first-level indicators, the maximum value of the information production indicator is 2.152383, the minimum value is 1.864608, the mean value is 2.001408, the standard deviation is 0.082477, and the scoring rate reaches 79.83%, which indicates that Guizhou governmental WeChat official accounts

perform relatively well in information indicators during the epidemic outbreak. The reason behind this can be attributed to the public high demand for the authenticity, authority, and timeliness of epidemic-related information since the epidemic outbreak in Zunyi, for which official resources such as the governmental WeChat official accounts become the best choice for the public. The maximum value of the cultural education indicator is 0.123133, the minimum value is 0.090879, the mean value is 0.105509, the standard deviation is 0.011230, and the scoring rate is 17.94%, the lowest among the four first-level indicators as demonstrated by poor performance. The major reason lies in that the public pays less attention to cultural education information during the epidemic outbreak, which in turn affects the coverage of cultural and educational news. The maximum value of the value guidance indicator is 0.377000, the minimum value is 0.377000, the mean value is 0.317337, the standard deviation is 0.030707, and the scoring rate is 36.08%; the maximum value of the communication and coordination indicator is 0.970274, the minimum value is 0.279261, the mean value is 0.393939, the standard deviation is 0.196979, and the scoring rate is 38.41%. The below-the-standard scoring rates of these two indicators reflect the unremarkable overall performance and the less-than-ideal function implementation.

4.1.2 Analysis of the Social Responsibility Scores of the Sample Governmental WeChat Official Accounts

Menu bars are set in the home page layout in all the sample governmental WeChat official accounts. Guizhou People's Government, for example, sets three menu bars including @Provincial Government, Micro Matrix, and Fingertip Government. Such a measure can provide more convenient government services for the public and display its characteristics, thus boosting clicks. In this paper, two samples, namely Guizhou People's Government and Bijie People's Government, are selected for comparison. And the first-level indicator scores of these two samples rank first and second among the 10 selected governmental WeChat official accounts.

Guizhou Provincial People's Government (A score of 3.553235)

Guizhou Provincial People's Government, an official account directly subordinate to the General Office of Guizhou Provincial Government, serves as one of the main windows for the provincial government to release government information. Ranking first in this social responsibility evaluation,

it also takes the lead in information production, value guidance and coordination, and communication indicators while falling behind in cultural education indicators, highlighting its shortcomings in the contents reported during the epidemic outbreak. Given its weakness in anti-epidemic spirit and content richness, the final score is affected that the total score of first-level indicators fails to reach more than 4, limiting it to a moderate level.

Bijie People's Government (A score of 2.996317)

Bijie People's Government, as a sample government WeChat official account, ranks second in the total score of first-level indicators, ranks first with a slight advantage in the score of cultural education indicator, while ranking the last in the score of value guidance indicator. The overall score of the first-level indicators is just above the passing line with a tiny difference with those samples ranking after third place. The performance can thus only be concluded as "normal" in all aspects.

4.2 Evaluation of "Information Production" (RQ2) of Guizhou Governmental WeChat Official Accounts

4.2.1 Analysis of Information Quality Situation

As shown in Table 6 about the scores of the third-level indicator, "information quality", 10 sampled governmental WeChat official accounts perform the best in "authenticity", "authority", and "objectivity". All these sample objects score similarly in these three aspects, among which "authenticity" and "authority" are scored the same full mark with a score of 0 in standard deviation. It is thus indicated that no false information is found in the articles collected from the 10 governmental WeChat official accounts, which is related to the positioning and attributes of governmental WeChat official accounts. However, there is still room for improvement in terms of "depth" and "originality". Specifically speaking, governmental WeChat official accounts fail to publish enough in-depth reports of relevant governmental affairs and news information only with those dominated by repetitive contents of leadership speeches and conferences. When it comes to "originality" responsibility, original articles, sharing a small proportion, are nowhere near the number of articles from other sources in all the 10 governmental WeChat official accounts.

Table 6 The Scores of the Third-level Indicator, "Information Quality"

Unit: Score

Name of Official Account	Authenticity	Authority	Timeliness	Coverage	Depth	Originality	Objectivity
Guizhou Provincial People's Government	0.760000	0.216000	0.105670	0.113478	0.054091	0.016826	0.417500
Zunyi People's Government	0.760000	0.216000	0.133042	0.147636	0.041127	0.002345	0.417500
The Voice of Guizhou	0.760000	0.216000	0.175724	0.150000	0.026000	0.010379	0.417500
Bijie People's Government	0.760000	0.216000	0.148633	0.133400	0.028275	0.022575	0.417500
Liupanshui People's Government	0.760000	0.216000	0.128000	0.134939	0.055781	0.011847	0.413240
Southeast Guizhou Government	0.760000	0.216000	0.124133	0.147900	0.037700	0.010750	0.417500
South Guizhou People's Government	0.760000	0.216000	0.182933	0.155440	0.047753	0.013760	0.417500
Southwest Guizhou Government Affairs	0.760000	0.216000	0.181659	0.148537	0.055171	0.018878	0.417500
Tongren People's Government	0.760000	0.216000	0.079459	0.134027	0.020378	0.001743	0.417500
Anshun People's Government	0.760000	0.216000	0.119304	0.138696	0.027319	0.022435	0.417500
Mean Value	0.760000	0.216000	0.137856	0.140405	0.039360	0.013154	0.417074
Standard Deviation	0.000000	0.000000	0.032557	0.011577	0.012726	0.006955	0.001278

4.2.2 Analysis of Process Management Situation

It can be seen from Table 7 that the 10 sample WeChat official accounts are commendable in regulating advertisements and controlling infringement liability. As all the sample objects score the full mark with a score of 0 in standard deviation, it demonstrates that there are no advertising implants or pushes when publishing articles, which is related to the political attributes of governmental WeChat official accounts themselves. In terms of controlling infringement, all sample subjects pay attention to the intellectual property protection of the content when quoting and reprinting the contents from other platforms and

websites with the author, unit, source, and other related information prominently marked at the beginning or end of the article. The responsibility of information check refers to whether the audit unit and auditor are marked at the end of the article. Great differences exist in the scores among the sample subjects, except for the full mark achieved by Guizhou Provincial People's Government and Bijie People's Government, Zunyi People's Government, Liupanshui People's Government, South Guizhou People's Government, Tongren People's Government, Anshun People's Government even obtain a score of 0. To conclude, the sample objects differ greatly in the scores of the "information check" indicator with a standard deviation of 0.074675.

Table 7 The Scores of the Third-level Indicator, "Process Management"

Unit: Score

Name of Official Account	Information Check	Advertising Regulation	Infringement Control
Guizhou Provincial People's Government	0.190500	0.080500	0.155000
Zunyi People's Government	0.000000	0.080500	0.155000
The Voice of Guizhou	0.002190	0.080500	0.155000
Bijie People's Government	0.190500	0.080500	0.155000
Liupanshui People's Government	0.000000	0.080500	0.155000
Southeast Guizhou Government	0.009525	0.080500	0.155000
South Guizhou People's Government	0.000000	0.080500	0.155000
Southwest Guizhou Government Affairs	0.027878	0.080500	0.155000
Tongren People's Government	0.000000	0.080500	0.155000
Anshun People's Government	0.000000	0.080500	0.155000
Mean Value	0.042059	0.080500	0.155000
Standard Deviation	0.074675	0.000000	0.000000

4.3 Evaluation of "Value Guidance" (RQ3) of Guizhou Governmental WeChat Official Accounts

4.3.1 Analysis of Consensus Building Situation

"Consensus shaping" stands as an important purpose of disseminating information on governmental WeChat official accounts. It can be seen from Table 8 that 10 sampled governmental WeChat official accounts perform well in mainstream value responsibility with a small difference in scores. A column named 'Study Hard' has also been set up in the official accounts of Guizhou Provincial People's Government and The Voice of Guizhou to facilitate the public in-depth learning of Xi Jinping's socialist thoughts on Chinese characteristics in the new era. In terms of social morality responsibility, Zunyi People's Government scores the highest, which is mainly related to the epidemic outbreak in Zunyi on October 19th. Other samples seem to report fewer touching deeds and moving events, presenting their own regional characteristics.

Table 8 The Scores of the Third-level Indicator, "Value Guidance"

Unit: Score

Name of Official Account	Consensus Building		Social Monitoring		
	Mainstream Value	Social Ethics	National Governance	Social Risks	Behavior Anomie
Guizhou Provincial People's Government	0.191000	0.000000	0.111065	0.074935	0.000000
Zunyi People's Government	0.191000	0.035600	0.053591	0.059191	0.000000
The Voice of Guizhou	0.191000	0.006138	0.083569	0.059431	0.000000
Bijie People's Government	0.184633	0.000000	0.049125	0.047875	0.000000
Liupanshui People's Government	0.183204	0.007265	0.110281	0.048852	0.000000

Southeast Guizhou Government	0.178267	0.000000	0.065500	0.038300	0.000000
South Guizhou People's Government	0.185907	0.000000	0.075980	0.035747	0.000000
Southwest Guizhou Government Affairs	0.191000	0.000000	0.105439	0.014012	0.000000
Tongren People's Government	0.185838	0.004811	0.066385	0.033642	0.000000
Anshun People's Government	0.182696	0.000000	0.108217	0.013877	0.000000
Mean Value	0.186454	0.005381	0.082915	0.042586	0.000000
Standard Deviation	0.004223	0.010447	0.023056	0.018598	0.000000

4.3.2 Analysis of Social Monitoring Situation

The research exposes the common poor performance with a score of 0 in "behavior anomie" of 10 governmental WeChat official accounts, manifested as no reports on issues concerning social and ethical misbehavior. Meanwhile, national governance and social risk responsibility perform at an average level with standard deviations of 0.023056 and 0.018598 respectively.

4.4 Evaluation of "Cultural Education" (RQ4) of Guizhou Governmental WeChat Official Accounts

4.4.1 Analysis of Cultural Inheritance Situation

As shown in Table 9, Zunyi People's Government achieves the highest score in terms of cultural inheritance responsibility while the other sample governmental WeChat official accounts have relatively low scores with a mean value of 0.004430. A score of 0 even exists in Guizhou Provincial People's Government, Voice of Guizhou, Southeast Guizhou Government, South Guizhou People's Government, and Southwest Guizhou Government.

What Zunyi People's Government mainly did during the epidemic outbreak was to publicize the local anti-epidemic deeds and encourage the public to fight against the epidemic.

4.4.2 Analysis of Science and Education Communication Situation

It is found that the scores of the 10 sample subjects in educational communication and science and technology communication responsibilities are not high, with mean values of 0.011761 and 0.021908, respectively. And the gap between each sample object is small with standard deviations of 0.00673 and 0.005752, indicating the weakening of each sample governmental WeChat official account in educational communication and science and technology communication during the epidemic.

4.4.3 Analysis of Entertainment Situation

As shown in Table 7, the official nature of governmental WeChat official accounts earns themselves full marks in the content healthiness indicators. While the serious and authoritative attributes limit the contents concerning tourism, food, exhibitions, movies, and other entertainment information, for which the scores of each sample are generally low with 6 out of 10 samples achieving scores of 0.

Table 9 The Scores of the Third-level Indicator, "Cultural Education"

Unit: Score

Name of Official Account	Cultural Inheritance	Science and Education Communication		Entertainment	
	Propaganda of Contemporary Culture and Anti-epidemic Spirit	Educational Communication	Science and Technology Communication	Content Richness	Content Healthiness

Guizhou Provincial People's Government	0.000000	0.006726	0.020974	0.001696	0.067000
Zunyi People's Government	0.033358	0.004018	0.015227	0.001182	0.067000
The Voice of Guizhou	0.000000	0.011431	0.011552	0.000897	0.067000
Bijie People's Government	0.002133	0.019338	0.034338	0.000325	0.067000
Liupanshui People's Government	0.005224	0.015786	0.022561	0.000000	0.067000
Southeast Guizhou Government	0.000000	0.005525	0.021775	0.000000	0.067000
South Guizhou People's Government	0.000000	0.020627	0.025460	0.000000	0.067000
Southwest Guizhou Government Affairs	0.000000	0.021561	0.022061	0.000000	0.067000
Tongren People's Government	0.001730	0.002986	0.020372	0.000000	0.067000
Anshun People's Government	0.001855	0.009609	0.024761	0.000000	0.067000
Mean Value	0.004430	0.011761	0.021908	0.000410	0.067000
Standard Deviation	0.009771	0.006739	0.005752	0.000592	0.000000

4.5 Evaluation of "Coordination and Communication" (RQ5) of Guizhou Governmental WeChat Official Accounts

4.5.1 Analysis of Information Coordination Situation

The research unveils that these 10 governmental WeChat official accounts perform well in the publicity of topics with full marks in general. And the small difference between each sample with a standard deviation of 0.000911 indicates that the 10 samples report more content on epidemic information, social life, governmental affairs, and other convenient information. However, there are fewer reports involving multiple targets in the content. Given the failure to endow multiple parties with more discourse space, the scores for identity diversity are generally low.

4.5.2 Analysis of Communication Effectiveness Situation

As shown in Table 10, the overall scores in public participation, public recognition, platform interaction, and platform response are low, and there are large differences among the samples with standard deviations of 0.066596, 0.055982, 0.047953, and 0.031050 respectively. Among them, Guizhou Provincial People's Government scores the highest, with scores of 0.229000, 0.193500, 0.162000, and 0.103500 respectively. Governmental WeChat official accounts, though hosted and established by the local governments, feature interactive quality of new media of their information production platforms rather than simple propaganda and informing. The frequent 0 scores in platform interaction and platform response of these 10 samples show that the public has no or fewer comments on the articles viewed during the epidemic. Even the sample governmental WeChat official accounts themselves fail to reply to the public comments in time.

Table 10 The Scores of the Third-level Indicator, "Communication and Coordination"

Unit: Score

Name of Official Account	Information Coordination		Communication Effectiveness			
	Publicity of Topics	Identity Diversity	Public Participation	Public Recognition	Platform Interaction	Platform Response
Guizhou Provincial People's Government	0.250500	0.031774	0.229000	0.193500	0.162000	0.103500
Zunyi People's Government	0.247464	0.037436	0.045608	0.040379	0.000000	0.000000
The Voice of Guizhou	0.250500	0.026000	0.017941	0.011670	0.017543	0.000000
Bijie People's Government	0.250500	0.044225	0.062445	0.056779	0.025218	0.000000
Liupanshui People's Government	0.250500	0.056816	0.013154	0.014769	0.000000	0.000000
Southeast Guizhou Government	0.250500	0.026100	0.001312	0.001349	0.000000	0.000000
South Guizhou People's Government	0.250500	0.053360	0.005224	0.004256	0.000000	0.000000
Southwest Guizhou Government Affairs	0.250500	0.038195	0.001416	0.001928	0.000000	0.000000
Tongren People's Government	0.250500	0.047027	0.003137	0.007577	0.000000	0.000000
Anshun People's Government	0.250500	0.047913	0.003057	0.005813	0.000000	0.000000
Mean Value	0.250196	0.040885	0.038229	0.033802	0.020476	0.010350
Standard Deviation	0.000911	0.010247	0.066596	0.055982	0.047953	0.031050

5 CONCLUSIONS AND SUGGESTIONS

5.1 Conclusions

The rapid development of the Internet has enabled the government to use various types of governmental new media to connect more closely with the public and better serve them. This paper empirically analyzes the social responsibility of 10 Guizhou governmental WeChat official accounts through the new media social responsibility evaluation indicator system. The research results prove Guizhou governmental WeChat official accounts operate normally during the epidemic outbreak, well fulfilling social responsibility and performing well in information dissemination. However, some

shortcomings still emerge in the process of fulfilling responsibilities.

To begin with, in the overall evaluation of the social responsibility of Guizhou governmental WeChat official accounts, Guizhou Provincial People's Government has the highest total score, followed by Bijie People's Government and Zunyi People's Government respectively, and Southeast Guizhou Government and Tongren People's Government are in the bottom two places respectively.

Secondly, compared with municipal and state-level governmental WeChat official accounts, the social responsibility fulfillment ability of Guizhou provincial-level governmental WeChat official accounts proves to be higher. Much remains to be

improved for municipal and state-level government WeChat official accounts.

Finally, from the first-level indicators of social responsibility, there is also variability among Guizhou governmental WeChat official accounts. Specifically speaking, in "information production", there is a lack of originality in information quality and a lack of interpretation of in-depth reports; in process management, the overall social responsibility is fulfilled well but with a deficiency in information check in particular governmental WeChat official accounts. In "value guidance", the mainstream social values in the reports of Guizhou governmental WeChat official accounts highlight themselves, but the guidance in social morality remains insufficient. The same goes for the social supervision of behavior anomie. In "cultural education", shortcomings exist in the propagation of the anti-epidemic spirit, communication of education and science and technology, and also the entertainment richness. In "coordination and communication", Guizhou governmental WeChat official accounts have a strong public nature in coordinating information but lack diversity in reporting identity; the overall score of communication effectiveness is low, and the gaps between various governmental WeChat official accounts are large.

5.2 Suggestions

5.2.1 To Improve the Originality and Depth of Content

It is found that Guizhou governmental WeChat official accounts score low in the indicator of "originality" with most of the published articles reprinted and quoted from other media or platforms. At the same time, Guizhou governmental WeChat official accounts don't have enough interpretation of in-depth reports, making it extremely important to strengthen the originality and depth of the reports. As Guizhou governmental WeChat official accounts have the absolute right to speak about the epidemic, they can use their advantages of authenticity, authority, and objectivity to make in-depth interpretation of the epidemic information supplemented by pictures, audio, and video to form original articles with both pictures and contents, thus helping the government to quickly seize the high ground of public opinion and enhance the credibility of government information dissemination.

5.2.2 To Strengthen Social Supervision and Lead Social Ethics

The research unveils the poor performance of Guizhou governmental WeChat official accounts in the first-level indicator of "value guidance", especially in the third-level indicator of "behavior anomie" with a score of 0. There is still much room for improvement. The fact that the new government media has both government and media attributes means that the government should also monitor the society when disseminating information, and should constantly update the reports on corruption, social moral and ethical misconduct, and other issues. At the same time, the attributes of the media also require it to promote touching deeds and moving events in the epidemic to lead the social trend.

5.2.3 To Vigorously Consolidate the Richness of the Form and Content of Science and Education Communication

In the first-level indicator of "cultural education", Guizhou governmental WeChat official accounts achieve low scores in the third-level indicators of science and technology communication, educational communication, and content richness with poor performance. 0 scores even exist in content richness in six samples such as Liupanshui People's Government. What Guizhou governmental WeChat official accounts focus more during the epidemic outbreak are specific epidemic situations rather than tourism, food, exhibition, movies, and other entertainment information. Therefore, the combination of the form of science and education communication content with entertainment information content is conducive to public acceptance of information. Meanwhile, in the face of the rumors that emerged during the epidemic, Guizhou governmental WeChat official accounts should make use of their own advantages and influence to promote science and education on the progress of the COVID-19 vaccine research, new technologies, epidemic prevention knowledge, and other information, and integrate the anti-epidemic spirit into the anti-epidemic communication to deeply fulfill the social responsibilities of the new governmental media.

5.2.4 To Increase the Strength and Depth of Platform Responses

It is found that the low score of the third-level indicators of "platform participation" and "public

participation" under "communication effectiveness" further affected the third-level indicators of "public recognition" and "platform response". The original purpose of setting up a public governmental WeChat official account is to better connect the government with the public, to spread a strong government voice, and to listen to the public's voice. Therefore, it is imperative to reply to the public's messages in a timely manner, use manual answers as much as possible, and avoid a perfunctory attitude. Answers should hit the mark to effectively solve problems for the public.

REFERENCES

China News. Guizhou Realizes China's First New Media Government Affairs Matrix [EB/OL]. https://www.chinanews.com.cn/sh/2017/06-21/8257341.shtml , 2017-06-21.

General Office of Guizhou Provincial People's Government. Implementation Opinions on the Healthy and Orderly Development of New Media for Government Affairs[Z].2019.

Huang G.F., Zhang Y.M. Content Marketing Strategies for Library WeChat Public Account Based on WCI[J]. Library Journal, 2015,34(09):91-96

Ji F., Zhang X.H. Research on the Evaluation of the Communication Effect of WeChat Public Platform[J].Information Studies:Theory & Application, 2015,38(12):77-81.

Mao B., Liu J.J, Liu S.M. Research on the Optimization Path of Government Affairs WeChat under the New Normal[J]. Journal of Intelligence,2016,35(08):48-53.

Xie Q.H., Peng Z.C. A Comparative Study of Crisis Communication Mechanism between Government Weibo and Government WeChat based on TAM[J]. Journal of Intelligence,2017,36(05):106-112+100.

Yang D.Y Infringement determination and copyright protection of works on WeChat Official Accounts[J]. Journal of Sichuan Vocational and Technical College,2021,31(06):63-67.

Yan Y.M., Zhao P.W. A Method for Evaluating the Influence of the WeChat Public NO[J]. Journal of Intelligence, 2016,35(09):141-145.

Zhang S.Y., Zhong, Y. Construction and Quantitative Evaluation of Influence Index of WeChat Public Account[J]. Journal of Chongqing University of Posts and Telecommunications(Social Science Edition), 2019,31(03):71-79.

Zhong Y. 2020-2021 Annual Research Report on Social Responsibility of Chinese New Media from 2020 to 2021[R]. Social Sciences Academic Press,2021.